

AD-A082 977

ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/B 4/2
19306B MLRS, MISSILE NUMBERS 1058-1099, ROUND NUMBERS V-101 - V--ETC(U)

JAN 80

UNCLASSIFIED

ERADCON/ASL-DR-1115

ML

1 OF 1
AD
A082 977

END
DATE
FILMED
5-80
DTIC

ADA 082977

12

11

DISCLAIMER NOTICE

**THIS DOCUMENT IS BEST QUALITY
PRACTICABLE. THE COPY FURNISHED
TO DTIC CONTAINED A SIGNIFICANT
NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.**

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1115	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19306B MLRS Missile Nos. 1058-1099 Round Nos. V-101 - V-102		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS		8. CONTRACT OR GRANT NUMBER(s) DA Task 1F665702D127-02
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 8802		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research & Development Cmd Adelphi, MD 20783		12. REPORT DATE 14 January 1980
		13. NUMBER OF PAGES 17
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
16. DISTRIBUTION STATEMENT (of this Report)		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19306B MLRS, Missile Numbers 1058 and 1099, Round Numbers V-101 and V-102 are presented in tabular form.		

CONTENTS

	PAGE
INTRODUCTION -----	1
DISCUSSION -----	1
MAP -----	2
TABLES:	
1. Surface Observation taken at 1308 MST at SNAKE -----	3
2. SNAKE Pilot-Balloon-Measured Wind Data at 1250 MST --	4
3. SNAKE Pilot-Balloon-Measured Wind Data at 1308 MST --	5
4. JAL Significant Level Data at 1400 MST -----	6
5. JAL Upper Air Data at 1400 MST -----	8
6. JAL Mandatory Levels at 1400 MST -----	13

Accession for	
NTIS GRA&I	<input checked="" type="checkbox"/>
DIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	<input type="checkbox"/>
By _____	
Distribution/ _____	
Availability Codes	
Dist	Availability and/or special
A	23

REPORTING

19306B MLRS, White Sand Missile Range, 1058 at 1099
Round Number V-101 V-102 SNAKE
White Sand Missile Range, New Mexico, at 1308:31 MST 1308:35 MST,
on 14 January 1980 the module launch time was 1300 MST
1300:04 MST.

MISCELLANEOUS

Meteorological data were recorded and reduced by the White Sand Missile Range Team, Atmospheric Sciences Laboratory (ASL), White Sand Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (g/cm^3), wind direction, wind speed, and cloud cover were made at the SNAKE Met Site at 1300 MST.

(2) Monitor of wind speed and direction from one anemometer was provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from 1000 to 1000 ft by observation at:

SITE AND TIME

SNAKE 2 km

(2) Air temperature data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 94,000 ft in 1000 ft increments.

SITE AND TIME

JALLEN 1400 MST

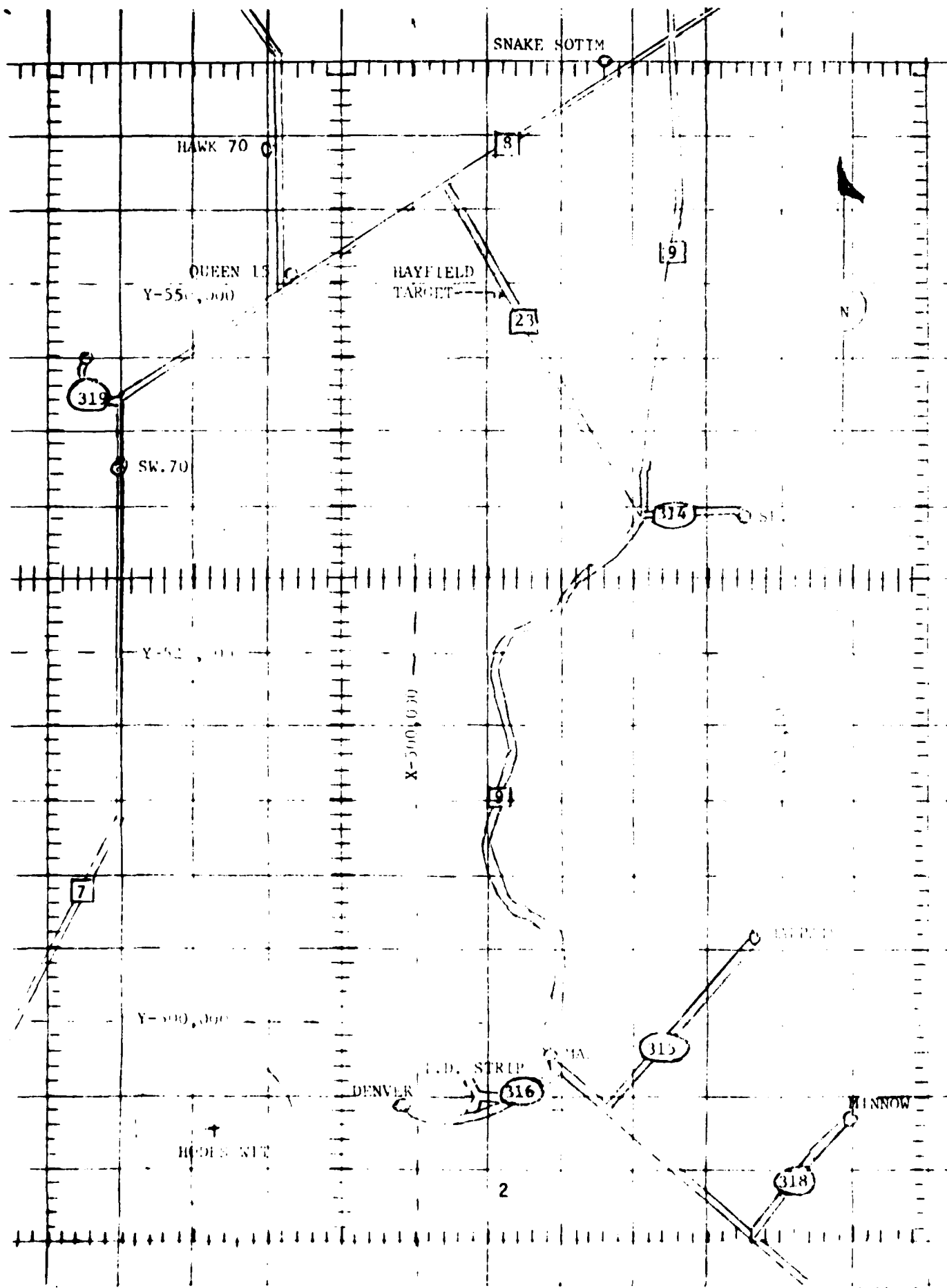


TABLE 1. Surface Observations taken at 1308 MST,
14 January 1980, at SNAKE SITE, 19306B
MLRS, Missile Numbers 1058 and 1099,
Round Numbers V-101 and V-102.

ELEVATION	4471	FEET
PRESSURE	862.5	MB
TEMPERATURE	15.5	°C
RELATIVE HUMIDITY	54	%
DEW POINT	6.1	°C
DENSITY	1036	GM/CM ³
WIND SPEED	05	KTS
WIND DIRECTION	180	DEGREES
CLOUD COVER	8 AS	

PILOT BALLOON MEASURED WIND 1413

TABLE 2

RELEASED FROM SNAKE SITE DATE 14 January 1980 TIME 1250 MST

TRACKER	COORDINATES (WGS84)	?	unk	?	unk	?	unk
---------	---------------------	---	-----	---	-----	---	-----

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHTS ARE METERS AGE X OR FEET AGE .[illegible][illegible][illegible]

PILOT BALLOON MEASURED: END DATA

TABLE 3

RELEASED FROM SNAKE SITE 0001 14 January 1980 1308 MST

TRACKER	COORDINATES (WSTM)	unk	unk	unk
---------	--------------------	-----	-----	-----

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHTS ARE METERS AGL X OR FEET AGL.

[illegible]

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

SIGNIFICANT LEVEL DATA
0140030015
JALLEN

TABLE 4

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE		REL. HUM. PERCENT
	18.1	7.2	
875.0	4051.0	1.5	49.0
865.0	4372.5	2.8	40.0
850.0	4857.6	2.3	48.0
826.8	5620.4	1.6	54.0
807.8	6259.7	-0.7	48.0
760.6	7908.3	-2.8	51.0
732.8	8919.6	-3.7	47.0
700.0	10153.5	-9.0	55.0
617.8	13456.8	-27.1	61.0
584.6	14892.7	-18.7	15.0
543.8	16751.1	-21.4	44.0
536.0	17118.8	-20.2	37.0
519.4	17915.3	-10.0	48.0
504.0	18672.6	-16.8	78.0
500.0	18972.2	-17.5	77.0
494.1	19168.8	-24.3	77.0
488.2	19468.5	-27.0	51.0
429.0	22641.8	-32.5	67.0
408.0	23849.5	-34.9	47.0
400.0	24323.0	-38.3	41.0
381.0	25478.2	-37.9	37.0
374.4	25890.5	-35.9	40.0
365.8	26437.5	-38.2	53.0
361.4	26720.9	-36.9	49.0
355.0	27137.0	-38.1	63.0
348.6	27558.4	-41.1	63.0
340.4	28100.9	-44.7	52.0
311.2	30145.2	-44.6	61.0
300.0	30765.3	-50.1	77.0
282.6	32286.3		60.0
250.0	34941.7		
229.4	36761.4		
210.0	38609.7		
200.0	39632.2		
185.8	41195.9		
165.8	43620.1		
157.8	44664.3		
150.0	45730.1		
114.2	51300.7		
100.0	53923.2		

STATION ALTITUDE 4051.00 FEET MSL
14 JAN. 80 1400 HRS MST
ASCENSION NO. 15

SIGNIFICANT LEVEL DATA
0140030015
JALLEN

TABLE 4 (CONT.)

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
86.2	56808.8	-73.7	
77.8	58818.0	-67.2	
70.0	60901.9	-71.1	
56.2	65214.4	-69.1	
54.4	65866.1	-63.3	
50.0	67594.2	-59.5	
43.4	70503.4	-62.1	
33.4	75909.5	-57.8	
30.0	78139.9	-59.5	
26.0	81105.2	-59.0	
23.4	83325.3	-52.4	
20.0	86699.8	-50.4	
14.3	94114.1	-40.1	

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

STATION ALTITUDE 4051.00 FEET MSL
14 JAN. 80 1400 HRS MST
ASCENSION NO. 15

UPPER AIR DATA
0140030015
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 5

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) SPEED KNOTS	INDEX OF REFRACTION
4051.0	875.0	18.1	7.2	1042.0	666.3	160.0	1.000278
4500.0	861.0	14.6	1.9	1039.1	661.9	170.8	1.000264
5000.0	845.6	13.2	2.7	1025.4	650.3	181.2	1.000263
5500.0	830.4	11.7	2.4	1012.3	638.6	189.9	1.000260
6000.0	815.5	11.9	1.9	993.4	658.6	209.3	1.000254
6500.0	800.7	11.8	1.3	975.8	658.7	222.8	1.000249
7000.0	786.5	10.8	.6	961.7	657.5	231.4	1.000244
7500.0	772.0	9.7	-1.1	947.9	656.2	240.0	1.000240
8000.0	758.0	8.8	-9	933.9	655.1	252.0	1.000235
8500.0	744.2	8.3	-1.9	918.8	654.4	260.3	1.000230
9000.0	730.6	7.6	-2.8	904.3	653.6	265.3	1.000225
9500.0	717.2	6.2	-3.2	891.9	652.0	268.3	1.000222
10000.0	704.0	4.9	-3.6	879.8	650.4	270.4	1.000219
10500.0	690.9	3.8	-4.3	867.0	649.1	271.9	1.000215
11000.0	677.9	2.7	-5.1	854.1	647.8	272.3	1.000211
11500.0	665.2	1.6	-5.8	841.5	646.5	272.0	1.000207
12000.0	652.8	.6	-6.6	829.0	645.3	270.6	1.000204
12500.0	640.6	-5	-7.4	816.7	644.0	269.0	1.000200
13000.0	628.6	-1.5	-8.2	804.6	642.7	267.2	1.000196
13500.0	616.8	-2.6	-9.3	792.6	641.4	265.3	1.000192
14000.0	605.0	-3.2	-13.8	779.8	640.5	263.4	1.000185
14500.0	593.5	-3.9	-19.8	767.2	639.5	262.1	1.000178
15000.0	582.2	-4.6	-26.1	755.0	638.5	264.8	1.000172
15500.0	570.9	-5.8	-22.9	743.5	637.2	266.2	1.000171
16000.0	559.9	-7.0	-20.7	732.2	635.9	265.6	1.000169
16500.0	549.1	-8.1	-19.3	721.2	634.5	263.8	1.000168
17000.0	538.5	-9.2	-20.5	710.2	633.1	261.3	1.000165
17500.0	528.0	-10.4	-20.7	699.5	631.7	261.3	1.000162
18000.0	517.7	-11.6	-19.6	688.8	630.4	261.8	1.000161
18500.0	507.5	-12.6	-16.7	677.8	629.2	261.5	1.000160
19000.0	497.4	-14.0	-17.1	667.9	627.5	261.1	1.000158
19500.0	487.6	-14.5	-22.3	656.1	626.8	261.0	1.000152
20000.0	477.7	-15.8	-23.0	646.1	625.2	260.8	1.000149
20500.0	468.1	-17.1	-23.7	636.3	623.7	260.5	1.000147
21000.0	458.7	-18.4	-24.4	626.7	622.1	260.2	1.000145
21500.0	449.4	-19.6	-25.2	617.2	620.5	259.1	1.000142
22000.0	440.4	-20.9	-26.0	607.9	618.9	258.0	1.000140
22500.0	431.5	-22.2	-26.8	598.7	617.3	255.5	1.000137
23000.0	422.7	-23.2	-28.5	588.7	616.1	255.4	1.000135
23500.0	414.0	-24.0	-30.8	578.5	615.1	251.9	1.000132

STATION ALTITUDE 4051.00 FEET MSL
14 JAN. 80 1400 HRS MST
ASCENSION NO. 15

UPPER AIR DATA
0140030015
JALLEN

GEODETTIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 5 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
			DEWPOINT				DIRECTION DEGREES (TN)	SPEED KNOTS	
24000.0	405.4	-24.8	-33.3	45.1	568.6	614.0	250.8	59.3	1.000129
24500.0	397.0	-26.0	-35.4	40.4	559.5	612.5	250.9	61.8	1.000126
25000.0	388.8	-27.1	-36.9	38.7	550.3	611.1	250.9	64.1	1.000124
25500.0	380.6	-28.2	-38.3	37.2	541.3	609.8	251.0	65.8	1.000122
26000.0	372.7	-28.8	-37.4	42.6	531.1	609.1	251.0	67.5	1.000120
26500.0	364.8	-29.8	-36.4	52.1	522.0	607.9	250.9	68.5	1.000118
27000.0	357.1	-31.9	-37.3	58.4	515.5	605.2	250.9	69.5	1.000116
27500.0	349.5	-33.3	-37.9	63.0	507.5	603.4	250.8	69.7	1.000115
28000.0	342.0	-34.5	-40.5	54.1	499.2	601.8	250.7	69.7	1.000112
28500.0	334.6	-35.8	-41.3	53.7	491.0	600.2	250.6	69.9	1.000110
29000.0	327.3	-37.1	-42.6	55.9	483.0	598.6	250.5	70.1	1.000109
29500.0	320.2	-38.4	-43.5	58.2	475.1	596.9	250.4	71.3	1.000107
30000.0	313.2	-39.7	-44.4	60.4	467.3	595.3	250.3	73.0	1.000105
30500.0	306.3	-41.0	-44.6	67.9	459.6	593.6	250.7	75.0	1.000103
31000.0	299.5	-42.3	-44.7	76.6	451.9	592.0	251.3	77.2	1.000101
31500.0	292.8	-43.6	-46.8	70.1	444.3	590.3	252.0	79.6	1.000100
32000.0	286.3	-44.9	-48.9	63.7	436.8	588.6	252.7	82.1	1.000098
32500.0	279.8	-46.1	-51.2	55.2**	429.3	587.1	253.0	85.8	1.000096
33000.0	273.4	-47.2	-54.2	43.9**	421.5	585.6	253.2	89.6	1.000094
33500.0	267.2	-48.3	-57.6	32.6**	414.0	584.2	253.6	94.0	1.000092
34000.0	261.1	-49.4	-61.9	21.3**	406.5	582.7	253.6	98.5	1.000091
34500.0	255.1	-50.5	-68.3	10.0**	399.2	581.3	253.8	102.8	1.000089
35000.0	249.3	-51.6			392.1	579.8	254.1	106.0	1.000087
35500.0	243.5	-52.9			385.1	578.2	254.5	106.6	1.000086
36000.0	237.8	-54.2			378.3	576.5	255.1	105.5	1.000084
36500.0	232.3	-55.4			371.6	574.8	255.3	100.6	1.000083
37000.0	226.8	-56.2			364.1	573.9	257.9	96.0	1.000081
37500.0	221.4	-56.3			355.7	573.7	260.0	91.8	1.000079
38000.0	216.2	-56.4			347.6	573.5	262.1	88.6	1.000077
38500.0	211.1	-56.6			339.6	573.3	264.1	87.3	1.000076
39000.0	206.1	-56.1			330.9	573.9	265.3	85.6	1.000074
39500.0	201.3	-55.6			322.2	574.7	269.0	82.3	1.000072
40000.0	196.6	-54.3			313.0	576.3	272.0	78.8	1.000070
40500.0	192.0	-52.9			303.7	578.2	275.7	73.9	1.000068
41000.0	187.5	-51.5			294.7	580.0	279.3	70.5	1.000066
41500.0	183.2	-51.3			287.7	580.2	281.6	70.7	1.000064
42000.0	178.9	-52.1			281.9	579.3	283.6	71.4	1.000063
42500.0	174.8	-52.8			276.3	578.3	284.8	73.2	1.000062
43000.0	170.7	-53.5			270.7	577.4	286.0	75.0	1.000060
43500.0	166.7	-54.2			265.3	576.4	286.9	74.4	1.000059

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
14 JAN. 80 1400 HRS MST
ASCENSION NO. 15

UPPER AIR DATA
01400J0015
JALLEN

GEODETTIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 5 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
4400.0	162.8	-54.4		259.4	576.1	287.9	73.7	1.000058
4450.0	159.0	-54.5		253.4	570.1	287.9	72.3	1.000056
4500.0	155.3	-55.1		248.1	575.3	287.2	70.5	1.000055
4550.0	151.7	-55.9		243.2	574.2	286.5	68.7	1.000054
4600.0	148.0	-56.8		238.4	573.0	285.6	67.2	1.000053
4650.0	144.5	-57.8		233.7	571.7	284.6	65.8	1.000052
4700.0	141.0	-58.7		229.0	570.5	284.8	65.1	1.000051
4750.0	137.6	-59.7		224.5	569.2	285.3	64.7	1.000050
4800.0	134.2	-60.7		220.1	567.9	286.6	65.2	1.000049
4850.0	131.0	-61.6		215.7	566.6	289.0	66.8	1.000048
4900.0	127.8	-62.6		211.5	565.3	291.2	68.7	1.000047
4950.0	124.7	-63.5		207.3	564.0	292.6	70.7	1.000046
5000.0	121.7	-64.5		203.2	562.7	294.1	72.8	1.000045
5050.0	118.8	-65.5		199.2	561.4	293.6	68.3	1.000044
5100.0	115.9	-66.4		195.3	560.1	292.8	63.3	1.000043
5150.0	113.1	-67.3		191.3	559.0	292.3	57.2	1.000043
5200.0	110.2	-67.9		187.1	558.1	292.2	49.8	1.000042
5250.0	107.5	-68.6		183.0	557.2	292.0	42.8	1.000041
5300.0	104.8	-69.3		179.0	556.3	292.7	42.3	1.000040
5350.0	102.2	-69.9		175.1	555.4	293.3	41.8	1.000039
5400.0	99.6	-70.6		171.3	554.5	292.3	43.9	1.000038
5450.0	97.1	-71.1		167.4	553.7	290.6	47.7	1.000037
5500.0	94.6	-71.7		163.6	553.0	289.1	51.3	1.000036
5550.0	92.2	-72.2		159.9	552.2	288.3	53.1	1.000036
5600.0	89.9	-72.8		156.3	551.4	287.5	55.0	1.000035
5650.0	87.6	-73.4		152.7	550.7	287.4	51.9	1.000034
5700.0	85.4	-73.1		148.6	551.0	287.7	46.9	1.000033
5750.0	83.2	-71.5		143.7	553.3	287.8	41.5	1.000032
5800.0	81.1	-69.8		139.0	555.5	286.2	33.6	1.000031
5850.0	79.1	-68.2		134.4	557.7	283.6	25.7	1.000030
5900.0	77.1	-67.5		130.6	556.6	279.6	20.7	1.000029
5950.0	75.2	-68.5		127.9	557.3	274.3	17.6	1.000028
6000.0	73.3	-69.4		125.3	556.1	268.0	14.9	1.000028
6050.0	71.4	-70.3		122.7	554.8	270.6	14.0	1.000027
6100.0	69.7	-71.1		120.1	553.8	273.6	13.1	1.000027
6150.0	67.9	-70.8		116.9	554.1	278.9	12.1	1.000026
6200.0	66.2	-70.6		113.6	554.5	285.9	11.1	1.000025
6250.0	64.5	-70.4		110.9	554.8	291.2	10.7	1.000025
6300.0	62.9	-70.1		107.9	555.1	292.6	11.0	1.000024
6350.0	61.3	-69.9		105.1	555.4	293.8	11.3	1.000023

STATION ALTITUDE 4051.00 FEET MSL
14 JAN. 80 1400 HRS MST
ASCENSION NO. 15

UPPER AIR DATA
0140030015
JALLEN

TABLE 5 (CONT)

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
64000.0	59.8	-69.7		102.3	555.7	291.0	12.2	1.000023
64500.0	58.3	-69.4		99.7	556.0	288.7	13.1	1.000022
65000.0	56.8	-69.2		97.0	556.4	288.0	12.8	1.000022
65500.0	55.4	-68.6		93.4	550.0	288.7	11.4	1.000021
66000.0	54.0	-63.0		89.6	554.7	289.8	9.8	1.000020
66500.0	52.7	-61.9		87.0	555.2	303.0	4.3	1.000019
67000.0	51.5	-60.8		84.4	567.7	58.3	2.5	1.000019
67500.0	50.2	-59.7		82.0	569.2	87.0	6.3	1.000018
68000.0	49.0	-59.9		80.1	569.0	94.0	8.7	1.000018
68500.0	47.8	-60.3		78.3	568.4	98.0	11.2	1.000017
69000.0	46.7	-60.8		76.6	567.8	98.1	8.9	1.000017
69500.0	45.6	-61.2		74.9	567.2	96.5	5.2	1.000017
70000.0	44.5	-61.7		73.3	566.6	87.4	1.5	1.000016
70500.0	43.4	-62.1		71.6	566.0	317.5	2.0	1.000016
71000.0	42.4	-61.7		69.8	566.5	305.2	5.0	1.000016
71500.0	41.4	-61.3		68.0	567.0	302.5	8.1	1.000015
72000.0	40.4	-60.9		66.3	567.6	305.4	9.4	1.000015
72500.0	39.4	-60.5		64.5	568.1	307.7	10.7	1.000014
73000.0	38.5	-60.1		62.9	568.6	309.0	12.0	1.000014
73500.0	37.5	-59.7		61.3	569.2	308.1	12.9	1.000014
74000.0	36.6	-59.3		59.7	569.7	307.4	13.8	1.000013
74500.0	35.8	-58.9		58.2	570.2	306.6	14.7	1.000013
75000.0	34.9	-58.5		56.7	570.7	305.4	15.3	1.000013
75500.0	34.1	-58.1		55.2	571.3	304.4	15.9	1.000012
76000.0	33.5	-57.9		53.8	571.6	304.2	16.3	1.000012
76500.0	32.5	-58.3		52.6	571.1	305.4	16.2	1.000012
77000.0	31.7	-58.6		51.5	570.6	306.6	16.1	1.000011
77500.0	30.9	-59.0		50.3	570.1	307.0	16.0	1.000011
78000.0	30.2	-59.4		49.2	569.6	306.4	15.9	1.000011
78500.0	29.5	-59.4		48.1	569.5	305.7	15.7	1.000011
79000.0	28.8	-59.4		46.9	569.6	302.0	16.6	1.000010
79500.0	28.1	-59.3		45.8	569.7	296.1	18.5	1.000010
80000.0	27.4	-59.2		44.7	569.9	291.4	20.7	1.000010
80500.0	26.8	-59.1		43.6	570.0	288.1	22.9	1.000010
81000.0	26.1	-59.0		42.5	570.1	285.6	25.3	1.000009
81500.0	25.5	-57.8		41.3	571.7	283.9	27.7	1.000009
82000.0	24.9	-56.3		40.0	573.6	282.8	29.3	1.000009
82500.0	24.3	-54.9		36.8	575.6	282.2	30.5	1.000009
83000.0	23.8	-53.4		37.7	577.6	281.7	31.6	1.000008
83500.0	23.2	-52.3		36.6	579.0	281.2	32.8	1.000008

STATION ALTITUDE 4051.00 FEET MSL
 14 JAN. 80
 ASCENSION NO. 15

UPPER AIR DATA
 0140030015
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE 5(CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
84000.0	22.7	-52.0		35.7	579.3	280.6	34.1	1.000008
84500.0	22.2	-51.7		34.9	579.7	280.4	35.3	1.000008
85000.0	21.6	-51.4		34.0	580.1	279.9	36.6	1.000008
85500.0	21.1	-51.1		33.2	580.5	279.3	37.9	1.000007
86000.0	20.7	-50.8		32.4	580.9	278.8	39.2	1.000007
86500.0	20.2	-50.5		31.6	581.3	278.2	40.3	1.000007
87000.0	19.7	-50.0		30.8	582.0	276.9	40.5	1.000007
87500.0	19.3	-49.3		30.0	582.9	275.7	40.6	1.000007
88000.0	18.9	-48.6		29.3	583.8	274.5	40.8	1.000007
88500.0	18.4	-47.9		28.5	584.7	273.2	38.7	1.000006
89000.0	18.0	-47.2		27.8	585.6	271.8	36.0	1.000006
89500.0	17.6	-46.5		27.1	586.5	270.1	33.4	1.000006
90000.0	17.2	-45.8		26.4	587.4	268.4	30.4	1.000006
90500.0	16.8	-45.1		25.7	588.3	266.7	26.8	1.000006
91000.0	16.5	-44.4		25.1	589.2	264.3	23.3	1.000006
91500.0	16.1	-43.7		24.4	590.1			1.000005
92000.0	15.7	-43.0		23.8	591.0			1.000005
92500.0	15.4	-42.3		23.2	591.9			1.000005
93000.0	15.0	-41.6		22.6	592.8			1.000005
93500.0	14.7	-41.0		22.1	593.6			1.000005
94000.0	14.4	-40.3		21.5	594.5			1.000005

STATION ALTITUDE 4051.00 FEET MSL
 14 JAN. 80
 ASCENSION NO. 15

MANDATORY LEVELS
 0140030015
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE 6

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUMID. PERCENT	WIND DATA	
		AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION (TN) DEGREES	SPEED KNOTS
850.0	4854.	13.6	2.8	48.	178.4	6.7
800.0	6522.	11.8	1.3	48.	223.3	13.5
750.0	8283.	8.5	-1.5	49.	257.5	16.5
700.0	10144.	4.5	-3.7	55.	270.9	27.0
650.0	12111.	.3	-6.8	59.	270.2	34.9
600.0	14202.	-3.5	-16.2	37.	262.7	41.6
550.0	16442.	-8.0	-19.4	39.	264.0	45.0
500.0	18847.	-13.7	-16.8	77.	261.2	50.3
450.0	21449.	-19.6	-25.1	81.	259.2	50.5
400.0	24284.	-25.6	-34.9	41.	250.9	60.8
350.0	27418.	-33.2	-37.8	83.	250.8	69.7
300.0	30906.	-42.2	-44.6	77.	251.2	77.0
250.0	34868.	-51.5			254.0	105.9
200.0	39540.	-55.4			269.0	81.6
175.0	42371.	-52.7			284.7	73.0
150.0	45610.	-56.3			280.1	68.1
125.0	49347.	-63.5			292.5	70.6
100.0	53761.	-70.5			292.7	43.2
80.0	58078.	-69.0			285.1	29.8
70.0	60608.	-71.1			272.8	13.3
60.0	63702.	-69.7			291.0	12.0
50.0	67347.	-59.5			88.2	6.6
40.0	71895.	-60.8			306.1	9.8
30.0	77814.	-59.5			300.2	15.8
25.0	81568.	-56.5			283.0	29.1
20.0	86303.	-50.4			277.8	40.3
15.0	92584.	-41.6				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.